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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,261	06/16/2006	Anders Stokki	78200-062	4585

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EXAMINER	
NGUYEN, KHANH TUAN	
ART UNIT	PAPER NUMBER
1751	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/596,261	STOKKI ET AL.	
	Examiner	Art Unit	
	Khanh T. Nguyen	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) *1-11* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The preliminary amendment filed on 06/16/2006 is entered and acknowledged by the Examiner. Claims 12-22 are currently pending with claims 1-11 canceled in the instant application.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 06/16/2006 has been regarded by Examiner and made of record in the application file.

Claim Objections

Claim 19 is objected to because of the following informalities: The sentence requires a period. Furthermore, the thickness of the top coating of "0,5" micron is suggested to be written as –0.5 micron–. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "2-components PU " in claim 16 failing to particularly point out and distinctly claim the subject matter, which renders the claim indefinite. The term is indefinite because the specification does not clearly redefine the term. Appropriate correction is required to clarify the terminology.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 12-15 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Abrams et al. (U.S Pat. 4,496,475 hereinafter, "Abrams") or Safta et al. (U.S Pat. 6,436,159 hereinafter, "Safta").

With respect to claim 12-15 and 16, Abrams discloses a conductive paste deposited on to a substrate 20 (Fig. 1). The prior art discloses the conductive paste may comprise low silver content, at least 5 wt. % of spherical glass beads coated silver of the paste (Col. 8, lines 10-12 and Col. 12, lines 37-47). The silver-coated beads have an average diameter from 1 to 50 micron (Col. 6, lines 42-44). The conductive paste contains an organic binder (Col. 8, line 27). Typically, the organic binder contains one or more resins and one or more solvents to give the paste the desired consistency, but in some embodiments the binder is solventless (Col. 8, lines 38-41). Abrams discloses organic binder is an acrylate resin or an epoxy resin such as an acrylate and methacrylate ester of silicone resins (Col. 8, lines 59-60 and Col. 9, lines 11-18). The binder is incorporated in the paste in an amount up to 35 to 40 wt. % of the paste (Col. 9, lines 32-36). The conductive paste is then coated to a substrate and fire to form an electroconductive body.

With respect to instant claims 12 and 16-18, Safta discloses an improved abrasion resistant surface finishes are applied tot eh surface of at least one layer of laminate (Col. 2, lines 26-28). The coating composition comprises a film forming resin and macrocrystalline or single crystalline mineral abrasive from about 5 up to about 60 wt. % of the coating (Col. 2, lines 37-40). The macrocrystalline or single crystalline mineral abrasive component is aluminum oxide or silicone oxide (Col. 4, line 1) and

have a crystal size of about 5 to about 60 microns is more preferably (Col. 3, lines 52-53). The prior art also discloses the top coat composition are usually formulated to contain about 5 to about 20 percent of mineral abrasive (Col. 4, lines 27-29). Safta discloses the film forming resin comprises a thermoplastic resin such as polyester resin, acrylic resin, or may comprise a urethane (col. 3, lines 23-27) and a UV curable resin such as polyurethane (Col. 3, lines 4-10). Typically the coating composition comprises about 40 to about 90 wt. % of film forming resin (Col. 3, lines 29-30). The coating composition can be applied to a surface (i.e. substrate) such as a wood, vinyl, tile, rubber modified cement, marble, metal plastic, or the surface laminated wall covering, flooring, or piece of furniture, and the like (Col. 4, lines 42-46).

Regarding claim 15, Abrams discloses a silver coating on a glass bead constitutes 8 wt. % to 12 wt. % of the beads and coating (Col. 4, lines 27-29) and have an average diameter from 5 to 10 microns (Col. 6, lines 46-47). The silver coated glass beads disclosed by Abrams contain the same amount of silver plating content on the beads and the beads have the same particle size. Therefore, the silver coated glass beads disclosed by Abrams should have the same dry bulk resistivity as claimed.

Claims 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Ozawa et al. (U.S Pub. 2004/0058147 hereinafter, "Ozawa").

With respect to claim 12, Ozawa discloses an antistatic film comprising metal oxide and ultrafine particles mixed layer formed on the surface of a film [0013]. The

ultrafine particles may be obtained by coating the surface of an inorganic substance core material such as glass, ceramic or metal carbide with a metal such as copper, gold, or silver by electroless plating. The preferably mean particle size of the ultrafine particle is no greater than 0.1 micron [0030]. The concentration of each of the coated metal compound and the conductive ultrafine particles is especially preferably 0.01 to 10 wt. % [0044]. The reference specifically or inherently meets each of the claimed limitations. The reference is anticipatory.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 13-14, 18 and 19-22, are rejected under 35 U.S.C. 103(a) as being unpatentable over Safta et al. (US Pat. 6,436,159) in view of Ferber et al. (U.S Pat. 5,626,948 hereinafter, "Ferber")

Safta is relied set forth above. With respect to instant claims 13-14, 18, and 20-22, Safta does not disclose the particles are substantially spherical and comprise a coating of Ag, Al, Au, Ni, Cu or an alloy thereof with another metals.

In the same filed of endeavor, Ferber discloses a top coating capable for wall and furniture application comprising between about 5% to 75% of urethane resin (Col. 9, lines 50-51) and about 5%-30% of electrically conductive material (Col. 9, lines 5-6). The conductive material may be precious metals (e.g. Cu, Al and Ni) and non-precious metals, inorganic powders such as mica, tin dioxide, silica, or silver coated fiberglass particles (Col. 7, lines 26-36). The topcoat optionally contains about 1%-60% metal oxide pigment (Col. 9, lines 66-67). The multilayer coating composition will permit

current flow in the z direction, but will prohibit substantial current flow along the x and y direction within the composition (i.e., parallel tot eh plane conductive surface) (Col. 1, lines 42-47). The top composition layer has a conductive which is less than the conductivity of a bottom layer so that the vertical conductivity may be obtained (Col. 3, lines 12-19), that is current is permitted to flow normal tot the surface of the combination of the first and second layers of the conductive composition, but is not permitted to flow within the top layer of the conductive composition parallel tot the surface thereof (Col. 2, lines 60-64). The Examiner understands that a surface with vertical conductivity will be antistatic because the charges are restricted from the surface and are dissipated between the topcoat and the bottom layers or the substrate.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to optimize the top abrasion resistance coating formulate, as taught by Safta, by incorporating spherical silver coated particles to obtain vertical conductivity channel, as taught by Ferber, in order to provide a top finish coating for flooring, walls and furniture that will not only provide abrasion resistance, but also have antistatic property that prevent electrostatic built-up cause by friction between consumers and product finish during usage. Therefore, the surface covering composition is an obvious formulation taught by Safta in view of Ferber.

Regarding claim 19, it is generally know in the art that a conductive layer or coating will have a thickness of two to three times the particles size in the conductive coating.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh T. Nguyen whose telephone number is (571) 272-8082. The examiner can normally be reached on Monday-Friday 8:00-5:00 EST PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KTN
06/28/2007

Mark Kopec
Primary Examiner